



REVOCATION OF PRIOR POWERS OF ATTORNEY APPOINTMENT OF NEW POWERS OF ATTORNEY AND

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Applicant/Patent Owner: SIEMENS VDO AUTOMOTIVE CORPORATION

Application No.: 10/642,391

Filing Date: 8/14/2003

Publication No.: 2004-0227231

Publication Date: 11/18/2004

Patent No.: 6906404 Issue Date: 6/14/2005

Entitled: Power Module With Voltage Overshoot Limiting

Siemens VDO Automotive Corporation, a Delaware corporation, as assignee of the entire right, title, and interest in the patent application/patent identified above by virtue of an assignment averred per the attached Statement Under 37 CFR 3.73(b), hereby:

a) revokes all previous powers of attorney given in the above-identified application.

b) appoints all Practitioners associated with the Customer Number: 028524 as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

c) requests change the correspondence address for the above-identified application to the address associated with the above-mentioned Customer Number.

19 July 2007

Laura M. Slenzak Assistant Secretary for Intellectual Property Matters

Siemens VDO Automotive Corporation

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: SIEMENS VDO AUTOMOTIVE CORPORATION

Application No.: 10/642,391 Filing Date: 8/14/2003

Publication No.: 2004-0227231 Publication Date: 11/18/2004

Patent No.: 6906404 Issue Date: 6/14/2005

Entitled: Power Module With Voltage Overshoot Limiting

Siemens VDO Automotive Corporation, a Delaware corporation, states that it is: the assignee of the entire right, title, and interest in the patent application/patent identified above by virtue of an assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 019077, Frame 0840, for which a copy thereof is attached.

As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was already submitted for recordation pursuant to 37 CFR 3.11.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

19 July 2007

Laura M. Stenzak

Assistant Secretary for Intellectual Property Matters

Siemens VDO Automotive Corporation





Patent Assignment Details NOTE:Results display only for issued patents and published applications. For pending or abandoned applications please consult USPTO staff.

Reel/Frame: 019077/0840

Pages:

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Total properti	es: 104							
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1	Patent #:		Issue Dt:		Application #:	9193391	rining Dt:	2/8/1994
	Title: SWITC	CHING POWER SUP	PLY OPERATION	NG AT LITTLE OR	NO LOAD			
2	Patent #:	5469351	Issue Dt:	11/21/1995	Application #:	8270967	Filing Dt:	7/5/1994
4		ISOLATION IN AN				02,030,		.,.,
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3	Patent #:	5552977	Issue Dt:	9/3/1996	Application #:	8493221	Filing Dt:	6/20/1995
	Title: THREE	PHASE INVERTER	CIRCUIT WIT	H IMPROVED TRA	ANSITION FROM SV	PWM TO SI	X STEP OPER	ATION
_		5007440		51611.003	A	0400463	Filling Day	71514005
4	Patent #:	<u>5627446</u>	Issue Dt:		Application #:	8498163	Filing Dt:	7/5/1995
	Title: INDU	CTION MOTOR CON	TROL METHO	D				
.5	Patent #:	5619435	Issue Dt:	4/8/1997	Application #:	8558950	Filing Dt:	.11/13/1995
	Title: MACH	***************************************	15500:01:	,,0,1557	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	THE PACE	1116						
6	Patent #:	<u>5739664</u>	Issue Dt:	4/14/1998	Application #:	8596846	Filing Dt:	2/5/1996
	Title: INDU	CTION MOTOR DRI	VE CONTROLL	ER				

7 .	Patent #:	<u>5754026</u>	Issue Dt:		Application #:	8825986	Filing Dt:	4/4/1997
	Title: INDU	CTION MOTOR CON	ITROL METHO	D				
8	Patent #:	5821720	Issue Dt:	10/13/1998	Application #:	8846442	Filing Dt:	4/30/1997
Ģ		LASH ELIMINATION		• •				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	THE BACK	DASH CEIMINATION	I THE DIVIN	EIRANIO AIL	CECTATO VEHICLE			
9	Patent #:	5994859	Issue Dt:	11/30/1999	Application #:	8848206	Filing Dt:	4/30/1997
	Title: TORS	IONAL OSCILLATIO	N COMPENSA	TION IN THE DRI	IVETRAIN OF A MOT	OR VEHIC	.E	
						0006445	5111 DA	0/0/4007
10	Patent #:	6072297	Issue Dt:		Application #:	8926415	Filing Dt:	9/9/1997
	Title: VIBRA	ATION DETECTION	AND CONTRO	L FOR A VEHICLE	DRIVETRAIN			
11	Patent #:	6047787	Issue Dt:	4/11/2000	Application #:	9017934	Filing Dt:	2/3/1998
		***************************************			R CONTROL SYSTEM		3	-,-,
12	Patent #:	5977679	Issue Dt:	11/2/1999	Application #:	9034946	Filing Dt:	3/5/1998
	Title: POLE	PHASE MODULATE	D TOROIDAL	WINDING FOR A	N INDUCTION MACH	IINE		
				54.04.000		0064337	Siller Dr.	4/22/4000
13	Patent #:	<u>5905349</u>	Issue Dt:		Application #:		Filing Dt:	4/23/1998
	Title: METH	OD OF CONTROLLI	NG ELECTRIC	MOTOR TORQUE	IN AN ELECTRIC V	EHICLE		
14	Patent #:	5965967	Issue Dt:	10/12/1999	Application #:	9110353	Filing Dt:	7/6/1998
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15	Patent #:	<u>6246343</u>	Issue Dt:	6/12/2001	Application #:	9263303	Filing Dt:	3/5/1999
	Title: INCR	EMENT ENCODER F	AILURE DETE	CTION				
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16	Patent #:	<u>6122588</u>	Issue Dt:		Application #:		Filing Dt:	10/19/1999
	Title: VEHIC	LLE SPEED CONTRO	JL WITH CON	IINUOUSLY VARI	ABLE BRAKING TOP	QUE		
17	Patent #:	6307275	Issue Dt:	10/23/2001	Application #:	9495443	Filina Dt:	1/31/2000
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18	Patent #:	<u>6377019</u>	Issue Dt:	4/23/2002	Application #:	9499366	Filing Dt:	2/10/2000
	Title: PEAK	TORQUE PER AMPI	RE METHOD	FOR INDUCTION	MOTOR VECTOR CO	NTROL		
	TIUE: PEAK	TORQUE PER AMPI	AC METHOD	OK-THEOCITON	MOTOR VECTOR CC	MINUL		





Patent Assignment Details NOTE:Results display only for issued patents and published applications. For pending or abandoned applications please consult USPTO staff. Reel/Frame: 019077/0840

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19	Patent #:	6239575	Issue Dt:	5/29/2001	Application #:	9502869	Filing Dt:	2/11/200
	Title: Indus	ction motor power						
		2000440	_ ·					2/22/200
20	Patent #:	6330143	Issue Dt:		Application #:	9512480	Filing Dt:	2/23/200
	Title: Autor	matic over-curren	t protection or tra	3112121012				
21	Patent #:	<u>6169679</u>	Issue Dt:	1/2/2001	Application #:	9532796	Filing Dt:	3/21/200
	Title: Meth	od and system for	r synchronizing ti	ne phase angles	of parallel connecte	d inverters		
22	Patent #:	6291960	Issue Dt:	9/18/2001	Application #:	9533296	Filing Dt:	3/22/200
	Title: Pulse	width modulated	motor control sy	stem and meth	od for reducing nois	e vibration	and harshness	;
22	Datast #	6227524	Tágua Dtu	12/4/2001	Application #1	0561546	Filing Dt:	4/28/200
23	Patent #:	6327524 em for high efficie	Issue Dt:		Application #:	9301340	rilling Dt.	4/,20/200
	7,500	sin for high childe	incy motor condi	,				
24	Patent #:	6366049	Issue Dt:		Application #:	9567592	Filing Dt:	5/10/200
	Title: Moto	r starter and spec	ed controller syst	em				
25	Patent #:	6178103	Issue Dt:	1/23/2001	Application #:	9567965	Filing Dt:	5/10/200
	Title: Meth	od and circuit for	synchronizing pa	rallel voltage so	urce inverters			
26	Patent #:	6212085	Issue Dt:	4/3/2001.	Application #:	9593613	Filing Dt:	6/13/20
20		grated dual voltag			repriedation wi	3333013	t inning De.	u, 15, 20.
27	Patent #:	6362988	Issue Dt:	3/26/2002	Application #:	9606865	Filing Dt:	6/29/20
	Title: OPE	RATION WITH A G	KID					
28	Patent #:	6239997	Issue Dt:	5/29/2001	Application #:	9653478	Filing Dt:	9/1/20
	Title: Meth	od and system fo	r connecting and	synchronizing a	supplemental power	er source to	a power grid	
29	Patent #:	6388419	Issue Dt:	5/14/2002	Application #:	9653654	Filing Dt:	9/1/20
	Title: Moto	r control system			• •			
30	Patent #:	6572416	Issue Dt:	6/2/2003	Application #:	0692076	Filing Dt:	11/5/20
30	Publication #: US2	***************************************	Pub Dt:	5/8/2003	Application #.	3002370	i ming Dt.	11/3/200
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31	Patent #: Publication #: <u>USŽ</u>	6646837	Issue Dt: Pub Dt:	12/19/2002	Application #:	9682994	Filing Dt:	11/6/20
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32	Patent #:	6744158	Issue Dt:	6/1/2004	Application #:	9683018	Filing Dt:	11/8/20
	Publication #: US2		Pub Dt:	7/11/2002				
	LIÉIG. ELEC	TRIC MACHINE W	ATTA COOLING K	INGS				
33	Patent #:	<u>6631960</u>	Issue Dt:		Application #:	9683171	Filing Dt:	11/28/20
	Publication #: US2		Pub Dt:	7/17/2003				
	Title: SERI	ES REGENERATIV	E BRAKING TOR	QUE CONTROL S	SYSTEMS AND METH	IODS		
34	Patent #:	6496393	Issue Dt:	12/17/2002	Application #:	9683172	Filing Dt:	11/28/20
	Title: INTE	GRATED TRACTIC	ON INVERTER MO	DULE AND BI-D	IRECTIONAL DC/DC	CONVERTE	ER	
35-	Patent #:	6465977	Issue Dt:	10/15/2002	Application #:	0683176	Filing Dt:	11/29/200
25	FORCILL #1	0403311	133UC DL.	10/13/2002	Application #.	2003170	inig Ut.	11/23/200





Patent Assignment Details

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Recorded:

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Pages:

7

Conveyance: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

Total properties: 104

Title: SYSTEM AND METHOD FOR CONTROLLING TORQUE IN AN ELECTRICAL MACHINE

36 Patent #: 6630809 Issue Dt: 10/7/2003 Application #: 9683180 Filing Dt: 11/29/2001 Publication #: US20030098665 Pub Dt: 5/29/2003

3/28/2007

Title: SYSTEM AND METHOD FOR INDUCTION MOTOR CONTROL

37 Patent #: 6639334 Issue Dt: 10/28/2003 Application #: 9683199 Filing Dt: 11/30/2001

Publication #: <u>US20030102728</u> Pub Dt: 6/5/2003

Title: JET IMPINGEMENT COOLING OF ELECTRIC MOTOR END-WINDINGS

38 Patent #: 6452352 Issue Dt: 9/17/2002 Application #: 9705236 Filing Dt: 11/2/2000

Title: CURRENT GENERATING SYSTEM

39 Patent #: 6445095 Issue Dt: 9/3/2002 Application #: 9758871 Filing Dt: 1/11/2001

Publication #: <u>US20020089242</u> Pub Dt: 7/11/2002
Title: ELECTRIC MACHINE WITH LAMINATED COOLING RINGS

40 Patent #: 6636429 Issue Dt: 10/21/2003 Application #: 9957001 Filing Dt: 9/20/2001

Publication #: US20020126465 Pub Dt: 9/12/2002

Title: LEVEL

41 Patent #: 6793502 Issue Dt: 9/21/2004 Application #: 9957047 Filing Dt: 9/20/2001

Publication #: <u>US20020111050</u> Pub Dt: 8/15/2002

Title: PRESS (NON-SOLDERED) CONTACTS FOR HIGH CURRENT ELECTRICAL CONNECTIONS IN POWER MODULES

42 Patent #: 6845017 Issue Dt: 1/18/2005 Application #: 9957568 Filing Dt: 9/20/2001

Publication #: <u>US20020118560</u> Pub Dt: 8/29/2002

Title: SUBSTRATE-LEVEL DC BUŞ DESIGN TO REDUCE MODULE INDUCTANCE

43 Patent #: <u>6707270</u> Issue Dt: 3/16/2004 Application #: 10010307 Filing Dt: 11/13/2001

Publication #: <u>US20030090226</u> Pub Dt: 5/15/2003

Title: SYSTEM AND METHOD FOR INDUCTION MOTOR CONTROL

44 Patent #: 7012810 Issue Dt: 3/14/2006 Application #: 10109555 Filing Dt: 3/27/2002

Publication #: <u>US20020167828</u> Pub Dt: 11/14/2002

Title: LEADFRAME-BASED MODULE DC BUS DESIGN TO REDUCE MODULE INDUCTANCE

45 Patent #: 6919650 Issue Dt: 7/19/2005 Application #: 10159603 Filing Dt: 5/31/2002

Publication #: <u>US20030222507</u> Pub Dt: 12/4/2003

Title: HYBRID SYNCHRONIZATION PHASE ANGLE GENERATION METHOD

46 Patent #: 6700342 Issue Dt: 3/2/2004 Application #: 10208251 Filing Dt: 7/29/2002

Publication #: US20030030395 Pub Dt: 2/13/2003

Title: LIMITED POSITION INFORMATION

47 Patent #: 6815925 Issue Dt: 11/9/2004 Application #: 10293911 Filing Dt: 11/12/2002

Publication #: <u>US20040090205</u> Pub Dt: 5/13/2004

Title: SYSTEMS AND METHODS FOR ELECTRIC MOTOR CONTROL

48 Patent #: 6778411 Issue Dt: 8/17/2004 Application #: 10298473 Filing Dt: 11/18/2002

Publication #: <u>US20040095786</u> Pub Dt: 5/20/2004

Title: STARTUP APPARATUS AND METHOD FOR POWER CONVERTERS





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49	Patent #:	<u>6714424</u>	Issue Dt:	3/30/2004	Application #:	10306833	Filing Dt:	11/27/20
		US20040037097	Pub Dt:	2/26/2004				
	Title:	DEAD-TIME COMPENSA	ATION WITH NAR	ROW PULSE ELI	MINATION IN SOL	ID-STATE SI	WITCH DEVIC	ES
50	Patent #:	6861835	Issue Dt:	3/1/2005	Application #:	10309793	Filina Ót:	12/3/20
J.		US20040104718	Pub Dt:	6/3/2004	Application in	10503133	· ······g p···	12,3,20
		METHOD AND SYSTEM			NSISTOR DIE VOL	TAGE MEAS	UREMENT	
	7,1,1,2,1							
51	Patent #:	***************************************	Issue Dt:		Application #:	10328934	Filing Dt:	12/23/20
		US20030147191	Pub Dt:	8/7/2003				
	Title:	DEVICES AND METHOD	os for detection	NG ISLANDING	OPERATION OF A S	TATIC POWI	ER SOURCE	
52	Patent #:	7190145	Issue Dt:	3/13/2007	Application #:	10334198	Filing Dt:	12/30/20
	•	US20030164692	Pub Dt:	9/4/2003	, , ,		-	
		METHOD AND APPARA	TUS FOR IMPROV	ING SPEED MEA	ASUREMENT QUALI	TY IN MULTI	-POLE MACH	INES
53	Patent #:	6914354	Issue Dt:	7/5/3005	Application #:	10334030	Eiling Dt.	12/30/20
2,3		US20030173840	Pub Dt:	9/18/2003	Application #:	10334620	riing Dt:	12/30/20
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54	Patent #:	<u>6853940</u>	Issue Dt:	2/8/2005	Application #:	10345871	Filing Dt:	1/15/20
	Publication #:	<u>US20030165036</u>	Pub Dt:	9/4/2003				
	Title:	ANTI-ISLANDING DEVI	CE AND METHOD	FOR GRID CO	NNECTED INVERTE	RŞ USING R	ANDOM NOIS	E INJECTION
55	Påtent #:	6844701	Issue Dt:	1/18/2005	Application #:	10345872	Filina Dt:	1/15/20
		US20030164028	Pub Dt:	9/4/2003				-,,
		OVERMODULATION SY			JCTION MOTOR, CO	NTROL		
	Patent #:	<u>6937483</u>	Issue Dt:	8/30/2005	Application #:	10345894	Filing Dt:	1/15/20
56		*******			••			
56		US20030198064	Pub Dt:	10/23/2003			-0.750	
56		*******				OOST CONVE	ERTER	
56 57		US20030198064 DEVICE AND METHOD		ON CONTROL FO				1/16/20
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57	Title: Patent #: Publication #: Title:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METH	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE	1/18/2005 8/21/2003 MULTIPLE EFFE	OR AN ISOLATED BO Application #: ECTIVE RATIOS FRO	10346554 DM A FIXED	Filing Dt:	SAXLE
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57	Title: Patent #: Publication #: Title: Patent #: Publication #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003	Application #: CTIVE RATIOS FRO Application #:	10346554 DM A FIXED 10346561	Filing Dt:	SAXLE
57	Title: Patent #: Publication #: Title: Patent #: Publication #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003	Application #: CTIVE RATIOS FRO Application #:	10346554 DM A FIXED 10346561	Filing Dt:	SAXLE
57	Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DNVERTER FOR	Application #: CTIVE RATIOS FRO Application #:	10346554 DM A FIXED 10346561 EM	Filing Dt: RATIO TRANS Filing Dt:	1/16/20 SAXLE 1/16/20 1/16/20
57 58	Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450 US20030214266	OF COMMUTATION Issue Dt: Pub Dt: OD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DNVERTER FOR 5/17/2005 11/20/2003	Application #: Application #: Application #: Application #: A FUEL CELL SYSTI	10346554 DM A FIXED 10346561 EM 10346724	Filing Dt: RATIO TRANS Filing Dt: Filing Dt:	5AXLE 1/16/20
57 58	Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450	OF COMMUTATION Issue Dt: Pub Dt: OD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DNVERTER FOR 5/17/2005 11/20/2003	Application #: Application #: Application #: Application #: A FUEL CELL SYSTI	10346554 DM A FIXED 10346561 EM 10346724	Filing Dt: RATIO TRANS Filing Dt: Filing Dt:	5AXLE 1/16/20
57 58 59	Title: Patent #: Publication #: Patent #: Publication #: Title: Patent #: Publication #: Title:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450 US20030214266 CIRCUIT CONFIGURAT	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt: Issue Dt: Pub Dt: Issue Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DIVERTER FOR 5/17/2005 11/20/2003	Application #: CTIVE RATIOS FRO Application #: A FUEL CELL SYSTE Application #:	10346554 DM A FIXED 10346561 EM 10346724 TOR CONTRO	Filing Dt: RATIO TRANS Filing Dt: Filing Dt:	1/16/20 1/16/20
57 58	Title: Patent #: Publication #: Title: Patent #: Publication #: Patent #: Publication #: Title: Patent #: Publication #: Title:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450 US20030214266 CIRCUIT CONFIGURAT	OF COMMUTATION Issue Dt: Pub Dt: OD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DIVVERTER FOR 5/17/2005 11/20/2003 NENT MAGNET S	Application #: Application #: Application #: Application #: A FUEL CELL SYSTI	10346554 DM A FIXED 10346561 EM 10346724 TOR CONTRO	Filing Dt: RATIO TRANS Filing Dt: Filing Dt:	1/16/20 1/16/20
57 58 59	Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450 US20030214266 CIRCUIT CONFIGURAT	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt: ION FOR PERMAN Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DIVERTER FOR 5/17/2005 11/20/2003 NENT MAGNET S 3/14/2006 11/20/2003	Application #: CTIVE RATIOS FRO Application #: A FUEL CELL SYSTE Application #: SYNCHRONOUS MO Application #:	10346554 DM A FIXED 10346561 EM 10346724 TOR CONTRO	Filing Dt: RATIO TRANS Filing Dt: Filing Dt:	1/16/20 1/16/20
57 58 59	Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450 US20030214266 CIRCUIT CONFIGURAT 7012822 US20030214826 INTEGRATED TRACTIO	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt: ION FOR PERMAN Issue Dt: Pub Dt: N INVERTER MON	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DIVERTER FOR 5/17/2005 11/20/2003 NENT MAGNET S 3/14/2006 11/20/2003 DULE AND DC/C	Application #: Application #: Application #: A FUEL CELL SYSTI Application #: SYNCHRONOUS MO Application #: C CONVERTER	10346554 DM A FIXED 10346561 EM 10346724 TOR CONTRI	Filing Dt: RATIO TRANS Filing Dt: Filing Dt: OL Filing Dt:	1/16/20 1/16/20 1/16/20 2/7/20
57 58 59	Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #: Publication #: Title: Patent #:	US20030198064 DEVICE AND METHOD 6843749 US20030155165 APPARATUS AND METHOD 7014928 US20030157379 DIRECT CURRENT/DIR 6894450 US20030214266 CIRCUIT CONFIGURAT 7012822 US20030214826 INTEGRATED TRACTIO	OF COMMUTATION Issue Dt: Pub Dt: HOD TO ACHIEVE Issue Dt: Pub Dt: ECT CURRENT CO Issue Dt: Pub Dt: ION FOR PERMAN Issue Dt: Pub Dt:	1/18/2005 8/21/2003 MULTIPLE EFFE 3/21/2006 8/21/2003 DIVERTER FOR 5/17/2005 11/20/2003 NENT MAGNET S 3/14/2006 11/20/2003 DULE AND DC/C	Application #: CTIVE RATIOS FRO Application #: A FUEL CELL SYSTE Application #: SYNCHRONOUS MO Application #:	10346554 DM A FIXED 10346561 EM 10346724 TOR CONTRI	Filing Dt: RATIO TRANS Filing Dt: Filing Dt: OL Filing Dt:	1/16/20 1/16/20





Title: POWER CONVERTER SYSTEM

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Patent Assignment Details NOTE:Results display only for issued patents and published applications. For pending or

	ed applications p Reel/Frame: 0190			1	Pages:	7		
			Recorded:	3/28/2007				
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62	Patent #:	6927988	Issue Dt:		Application #:		Filing Dt:	5/28/200
02	Publication #: US20		Pub Dt:	2/19/2004	reprieation in	10 (17) 00		3, 20, 200
		ERTER CIRCUITS		2, 13, 200				
63	Patent #:	6936991	Issue Dt:	8/30/2005	Application #:	10449824	Filing Dt:	5/30/2003
	Publication #: US20		Pub Dt:	2/26/2004				
	Title: METH	OD AND APPARA	TUS FOR MOTOR	CONTROL				
64	Patent #:	6845020	Issue Dt:	1/18/2005	Application #:	10453920	Filing Dt:	6/2/200
•	Publication #: US20		Pub Dt:	2/12/2004				
		R CONVERTER S	• •					
65	Patent #:	6867987	Issue Dt:	3/15/2005	Application #:	10461933	Filing Dt:	6/13/2003
	Publication #: US20	040252531	Pub Dt:	12/16/2004				
	Title: MULT	ILEVEL INVERTER	R CONTROL SCH	MES				
66	Patent #:	6900643	Issue Dt:	5/31/2005	Application #:	10637754	Filing Dt:	8/6/2003
	Publication #: US20	0050030045	Pub Dt:	2/10/2005				
	Title: RIDE	THROUGH IN ELI	ECTRONIC POWE	R CONVERTERS	P.			
67	Patent #:	6906404	Issue Dt:	6/14/2005	Application #:	10642391	Filing Dt:	8/14/200
	Publication #: US20	0040227231	Pub Dt:	11/18/2004				
	Title: POWE	R MODULE WITH	VOLTAGE OVER	SHOOT, LIMITIN	iG			
68	Patent #:	<u>6987670</u>	Issue Dt:	1/17/2006	Application #:	10642424	Filing Dt:	8/14/2003
	Publication #: US20		Pub Dt:	11/18/2004				
	Title: DUAL	POWER MODULE	POWER SYSTEM	ARCHITECTUR	E			
69	Patent #:	7058755	Issue Dt:	6/6/2006	Application #:	10658124	Filing Dt:	9/9/200
	Publication #: US20		Pub Dt:	3/10/2005				
	Title: EEPR	OM EMULATION I	N FLASH MEMOR	YY.				
70	Patent #: NONE		Issue Dt:		Application #:	10658804	Filing Dt:	9/9/2003
	Publication #: US20		Pub Dt:	12/7/2006				
	Title: Tri-le	vel inverter						
71	Patent #: NONE		Issue Dt:		Application #:	10664808	Filing Dt:	9/17/2003
	Publication #: US20	0040230847	Pub Dt:	11/18/2004				
	Title: Powe	r converter archit	ecture employing	at least one ca	apacitor across a DO	bus		
72	Patent #:	<u>7019996</u>	Issue Dt:	3/28/2006	Application #:	10688834	Filing Dt:	10/16/200
	Publication #: US20	0050083714	Pub Dt:	4/21/2005				
	Title: POWE	ER CONVERTER E	MPLOYING A PLA	NAR TRANSFOR	RMER			
73	Patent #: NONE		Issue Dt:		Application #:	10713552	Filing Dt:	11/14/200
	Publication #: US20		Pub Dt:	5/19/2005				
	Title: Twó-l	evel protection fo	or uninterrupted (power supply				
74	Patent #:	6940735	Issue Dt:	9/6/2005	Application #:	10713767	Filing Dt:	11/14/200
	Publication #: US20		Pub Dt:	5/19/2005				
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Publication #: US20060082983

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Patent Assignment Details.

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Reel/Frame: 019077/0840 Pages: 3/28/2007 Recorded: Conveyance: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS). Total properties: 104 88 Patent #: 7046535 **Issue Dt:** 5/16/2006 Application #: 11003542 Filing Dt: 12/3/2004 Publication #: US20050152100 **Pub Dt:** 7/14/2005 Title: ARCHITECTURE FOR POWER MODULES SUCH AS POWER INVERTERS 89 Patent #: NONE Issue Dt: Application #: 11010560 Filing Dt: 12/13/2004 Publication #: US20050152101 Pub Dt: 7/14/2005 Title: Architecture for power modules such as power inverters **Issue Dt:** Application #: 11010561 Filing Dt: 90 Patent #: NONE 12/13/2004 Pub Dt: 7/28/2005 Publication #: <u>US20050162875</u> Title: Architecture for power modules such as power inverters Application #: 11010950 Filing Dt: 91 Patent #: NONE Issue Dt: 12/13/2004 **Pub Dt:** Publication #: <u>US20060007721</u> 1/12/2006 Title: Architecture for power modules such as power inverters 92 Patent #: NONE **Issue Dt:** Application #: 11095035 Filing Dt: 3/30/2005 Publication #: US20050253543 **Pub Dt:** 11/17/2005 Title: Method, apparatus and article for vibration compensation in electric drivetrains 93 Patent #: NONE **Issue Dt:** Application #: 11096236 Filing Dt: 3/30/2005 Publication #: <u>US20050254273</u> Pub Dt: 11/17/2005 Title: Method, apparatus and article for bi-directional DC/DC power conversion 94 Patent #: NONE Issue Dt: Application #: 11192321 Filing Dt: 7/28/2005 Publication #: US20060022541 Pub Dt: 2/2/2006 Title: Rotor hub and assembly for a permanent magnet power electric machine 7187558 95 Patent #: Issue Dt: 3/6/2007 Application #: 11245723 Filing Dt: 10/6/2005 Publication #: US20060028806 Pub Dt: 2/9/2006 Title: LEADFRAME-BASED MODULE DC BUS DESIGN TO REDUCE MODULE INDUCTANCE 96 Patent #: NONE Issue Dt: Application #: 11250180 Filing Dt: 10/12/2005 Publication #: US20070080655 Pub Dt: 4/12/2007 Title: Method, apparatus and article for detecting rotor position 97 Patent #: NONE Issue Dt: Application #: 11255162 Filing Dt: 10/20/2005 Publication #: US20060152085 Pub Dt: 7/13/2006 Title: Power system method and apparatus Application #: 11262519 Filing Dt: 10/27/2005 98 Patent #: NONE Issue Dt: Publication #: US20070097569 Pub Dt: 5/3/2007 Title: System and method of over voltage control for a power system 99 Patent #: NONE Issue Dt: Application #: 11282301 Filing Dt: 11/18/2005 Publication #: US20070114954 Pub Dt: 5/24/2007 Title: System and method of commonly controlling power converters 100 7193860 Patent #: Issue Dt: 3/20/2007 Application #: 11292870 Filing Dt: 12/2/2005

Pub Dt:

Title: LEADFRAME-BASED MODULE DC BUS DESIGN TO REDUCE MODULE INDUCTANCE

4/20/2006





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3/28/2007 Conveyance: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

Total properties: 104

101

102

103

104

Patent #: NONE

Issue Dt:

Application #: 11317658 Filing Dt: 12/22/2005

Publication #: <u>US20070147097</u>

Pub Dt:

6/28/2007

Application #: 11318166 Filing Dt:

Title: house keeping power supply Patent #: NONE

Issue Dt:

5/11/2006

12/23/2005

Publication #: US20060099463 Title: Direct current/direct current converter for a fuel cell system

Pub Dt:

Patent #: NONE

Issue Dt:

Application #: 11472486 Filing Dt:

6/20/2006

Publication #: US20070012492

Pub Dt:

1/18/2007

Title: Power generation system suitable for hybrid electric vehicles

Patent #: NONE

Issue Dt:

Application #: 11480311 Filing Dt:

6/29/2006

Publication #: US20070016340

Pub Dt: 1/18/2007

Title: Controller method, apparatus and article suitable for electric drive

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